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### I. Introduction

Major structural change in the international economy during the 1980 and 1990 decades has been the growing integration of capital markets in the industrial countries. The integration has reflected both the dismantling of capital controls and the removal of restrictions that have constrained competition and asset prices flexibility in domestic financial markets.

Some related developments that easily come into focus are reductions in various barriers to trade in goods and services (trade liberalization) and movements of exchange rates towards the market (exchange rate liberalization). Arguably, whereas capital account liberalization has tended to outpace trade liberalization, it has moved in tandem with exchange rate liberalization. However, the exchange rate arrangement will be that which should best stabilize the price level in an economy with a partially and fully liberalized capital account. The optimal change in exchange rate arrangements would reflect both the changes in the financial structure of the economy as liberalization takes place.

Thus, capital account liberalization (CAL) is a complex and multifaceted issue, which if not properly addressed could increase risks of a crisis in a country with serious negative consequences for the real sector, e.g. a sudden reversal of capital flows and maintenance of fixed exchange rates. CAL could also affect the relationship between the stock of base money (B) and money

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186 Central Bank of Nigeria	Economic and Financial Review
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December 2006

supply (M), (M= $\propto$ B), as the removal of interest rate ceilings and emergence/availability of new financial instruments could affect the money multiplier ( $\propto$ ).

Thus, economists generally who have no problems about trade liberalization are hesitant to recommend CAL, especially to countries with

weak banking systems; or

no previous experience with trade liberalization.

Even so, there was a global movement towards CAL in the 1990s for a number of reasons: First, CAL signaled policy shifts or commitments to domestic policies. Second, it enabled countries to smoothen their consumption path; third, it was often used to signal a change in regime; reassure investors by signaling the authorities' willingness to tolerate capital outflows; and finally, it worked to penalize loose monetary policy: easier access to foreign exchange made the central bank vulnerable to rapid reserve losses-that is, to currency substitution and thereby depreciation. It was also believed that CAL reduced inflation and to that extent raised economic growth and reduced poverty.

The purpose of this paper is to dwell in some detail on CAL, emphasizing the preconditions for its safe implementation, the degree and sequencing of implementation, effects of CAL, noting costs and benefits and the way forward to its effective administration in Nigeria. The paper draws heavily on the work of Alex Cobbam of Oxford University and on background documents for the Closed Door National Workshop on the "Feasibility of the Convertibility of the Naira in the West African sub-region" (Omoruyi, 1997).

The paper is divided into six sections. Section I is this introduction. Section II dwells on theoretical issues including sequencing typology and impact of capital inflows on money supply. Section III focuses on management of CAL while Sections IV highlight the effects of CAL and country experiences, respectively. Section V contains the conclusion, while section VI outlines the way forward.

# II. Theoretical Issues

## II.1 Definition

Capital account liberalization (CAL) is the process of removing restrictions from international transactions **related** to the movement of capital, (Cobbam, 2001). It involves allowing not only foreign direct investment (FDI), but also capital inflows to **bond** and **equity** markets and to the **banking** sector. CAL can apply to both inflows and outflows of capital. Capital account restrictions can take various forms including:

limiting domestic banks' foreign borrowing;

controlling foreign capital coming into the economy;

limiting the sectors of industry in which foreigners can invest; and

restricting the ability of foreign investors to repatriate money earned from investments in the domestic economy.

A range of examples of controls grouped according to the above taxonomy is presented in Table 1 below:

Types of Flow to Domestic Economy	Controls on Inflows	Controls on Outflows	
Portfolio	Forms: Blanket control, inflow tax (percent of transaction value)	Form: Blanket control – up to 100 percent tax	
Equity	minimum stay restrictions, Intention: Reduce volatility and change maturi ty composition of inflows (towards longer-term)	Intention: Last resort measure – prevent deepening of crisis, allow government maintain lower interes rates hence reduce damage to industry (investment)	
Bonds	Form: Restrictions on foreign holding (up to 100 percent) Intention: Reduce volatility	As above	
Direct Investment	Form: Investment Boards Intention: Ensure integrity of national industry	Forms: Profit repatriation restrictions, or reinvestment requirements Intention: Ensure local economy benefits	
Bank Lending	Forms: Reserve requirements on foreign borrowing — enshrined in Basle Accord (preferably reserves held in foreign currency). Intention: To remove risk of bank collapse precipitated by withdrawal of foreign credit (and remove exchange risks on forex borrowing)	As portfolio flows	

Table 1: Types of Capital Controls Used

**Note:** Controls listed above are those that apply to foreign capital flows. Domestic capital is also subject to the same controls, to reduce volatility and as a last resort measure in the same way, and also to prevent the flight of capital intended to avoid taxation or the detection of related crime.

December 2006

### **II.2** Sequencing Typology

The literature is replete with suggestions that appropriate sequencing of events is imperative for the maximization of benefits from capital account liberalization (CAL). The sequencing is as follows, listed in order of implementation:

put in place trade liberalization;

undertake macroeconomic reforms, notably sound financial system reforms with good supervisory framework;

maintain independent monetary policy and flexible and sustainable exchange rate regimes;

maintain sound level of international reserves;

maintain good database on capital flows;

liberalize capital account gradually, analyzing the situation closely using balance of payments official data and other sources;

maintain detailed contingency plans in case trends turn out to be negative. The plans could be built hypothetically in response to questions such as:

What will the authorities do if capital flows are significantly higher than expected?

Which type of capital controls should the authorities use (price or quantity)?

Should prudential policies be stricter for banks in a framework of open capital account?

What if there is a sudden reversal of capital inflows?

Which outflows controls for residents/non-residents might be appropriate?

review existing legal framework for consistency;

train staff to effectively enforce new regulations. Is government social capital adequate for CAL?

balance openness with controls of capital account, recognizing lags in policy implementation: perception, recognition lag and impact lag.

## **II.3** Monetary Supply Impact

Foreign capital inflow can be registered in the monetary survey as follows:

$M = NDA^b  NFA^b \dots \dots$
$NDA^{b} = Cg  Cp(2)$
$M = Cg  Cp  NFA^{\ b} \tag{3}$
But $G T = Cg NFA^g$ (4)
$Cg = (G  T) \qquad NFA^{g} \qquad (5)$
$Cg = (G  T) \qquad NFA^{g} \dots (6)$
Substitute (6) in (3)
$M = (G  T) \qquad NFA^{g} \qquad Cp \qquad NFA^{b} \dots \dots$
where
$M = money supply, broadly defined (or M_2)$
NDA = net domestic assets
NFA = net foreign assets

Cg = credit to government (net)

189

190 Central Ba	ank of Nigeria	Economic and Financial Review	D
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December 2006

G-T	Titler Total	government overall deficit (revenue less current and capital
expen	ditures	
G	=	government expenditure (current and capital)
Т	=	government revenue
NFA <sup>b</sup>		net foreign assets of the banking system
NFA <sup>g</sup>		net foreign assets of the central bank or government.
Ср	=	Credit to private sector.

Equation 7 can be used to analyze the effects on the money supply of foreign capital inflows by the government to finance a deficit. When government borrows from the external credit market, so that there is a decline in NFA<sup>B</sup>, and transfers the proceeds of the borrowing to the banking system, then the net effect will be an increase in NFA<sup>b</sup> and an equivalent increase in money supply associated with the foreign inflow to finance the deficit.

Thus, external capital inflow impacts on the economy through exerting a negative impact on the net foreign assets of government or central bank through a corresponding increase in government liabilities. In the absence of sterilization activities to neutralize the impact of such inflows on money supply, capital inflow leads to the expansion of money supply, leading to short-run increase in the price level and depreciation of the exchange rate and ultimately, monetary and economic instability. Thus, a major management technique for capital inflow is the adoption of measures to sterilize the inflow of capital, e.g. by selling bonds, to return the money supply to its original level and prevent the emergence of inflationary pressure. This counteracts the money supply expansion because selling bonds involves taking domestic currency in exchange, and hence reduces the available money supply-which in turn reduces the upward pressure on prices. Government has in effect increased its liabilities-in the form of bonds issued but also increased its assets by the same amount, in the form of foreign exchange reserves.

Sterilization has its costs apart from increase in bonds liabilities; it has implication for foregone fiscal expenditure on areas that could have positive impact on the poor. Besides, sterilization cannot be successfully operated as a long term policy because inflows of capital are generally the result of an

interest rate differential between the domestic and international markets. Sterilization, involving the issue of more bonds (presumably at the same or higher interest rate to ensure demand) will not address this problem of capital flow volatility and may even exacerbate it, and therefore cannot be a long-term solution. Some salient points need be noted at this point in the effective management of Capital Account Liberalization (CAL).

## III. Managing Capital Account Liberalization

A prior consideration in the management of capital account liberalization (CAL) is its sequencing of implementation as outlined in section II of this paper. Government manages the components of capital inflows: equity, bonds, banking sector inflows, foreign direct investment (FDI) etc. These flows are not homogeneous and each type of flow should be analyzed separately. They have to be adequately managed as they create serious restrictions on government policy making. The management of CAL takes account of a number of issues:

## Sequencing of implementation

Countries must carefully manage and sequence liberalization in order to minimize the risk of crises. The ordering may be as indicated in section II of this paper.

# Hedging domestic currency

Capital inflows especially the short-term flows, being not as stable as long-term ones, put upward pressure on the domestic exchange rate because investors purchase local currency to invest in the stock market. The pressure leads to exchange rate appreciation, raising the cost of exports and lowering imports. To prevent this from happening, government must **sell** domestic currency and buy the incoming foreign exchange, thus building up reserves of foreign currency. Building up foreign reserves would increase the domestic money supply by the amount in question. This can be illustrated using a major strand of the four-equation Polak model:

$$M = Cg + Cp + OA (net) + NFA - QM....(8)$$

192	Central Bank of Nigeria	Economic and Financial Review	
-----	-------------------------	-------------------------------	--

December 2006

### Where;

Μ	=	Money Supply (Narrow definition, M1)
$C_{g}$	_	Credit to government etc.
	=	Credit to private sector
OA(net)	=	Other assets less other liabilities of the central bank
NFA	—	net foreign assets
QM	=	Quasi money = time and savings deposits.
Inflows rais	e net t	foreign assets (NFA) swelling money supply (M) ceter

Inflows raise net foreign assets (NFA) swelling money supply (M) ceteris paribus.

## Government may sterilize the inflow

Thus the **next step** is for government to **sterilize the inflow** by selling the equivalent value of government bonds to return money supply to its original level, and prevent inflation.

## Investment of built-up reserves in securities

In effect, government liabilities have increased in the form of bonds issued, while its assets have also increased by the same amount, in form of foreign exchange reserves. If those reserves are invested in interestbearing assets, e.g. US Treasury bills, the position of government has not really worsened by CAL. However, all these maneuvres in the form of government reaction to inflows, may involve cost depending on the interest rate differential between domestic interest rate and (in this case) the US interest rate.

## Example

It may be interesting to note Stiglitz (2000) example on the cost to government on this issue: Assume a company in a developing country borrows \$100 million from a US bank, and is to pay 20 percent interest since it is perceived as highly risky lending. If the government holds foreign exchange reserves (in US Treasury bills) to offset the borrowing, the government receives 5 percent interest. The annual cost to the developing country of this arrangement is then \$15 million (i.e. 20 5 percent of \$100 million). The cost to the government, on the assumption of full sterilization, may be different. Government may decide

to sell bonds to the value of \$100 million in a bid to maintain a stable money supply and pay say 15 percent interest on the bonds, being relatively risky compared with US Treasury bills. The direct cost to the government is then \$10 million a year (i.e. 15 percent of \$100 million - 5 percent of \$100 million it received for holding US Treasury bills). The foregone fiscal expenditure of government is then \$10 million a year. The effect of capital inflows is to reduce the level of government expenditure.

## IV. Effects of Capital Account Liberalization

In the preceding section, the paper, **inter alia**, noted the actions which government may take to manage capital account liberalization to minimize its destabilizing effect on the economy.

This section seeks a more detailed analysis of the effects of capital account liberalization on government finances and policy.

## Effects on government finances and policy

Following liberalization, the removal of controls on foreign direct investment, capital inflows to bonds and equity markets and on the banking sector may constrain government finances by the cost of managing inflows and increase levels of macroeconomic instability which can affect government revenue sources notably cuts in aid flows and reduction in government income. The reduction in income will involve spending cuts, historically targeted at investment in education and health, among others. Reduced infrastructure investment contributes to poor economic performance and reduced ability of government to raise taxes effectively.

# Costs of managing inflows

- CAL triggers equity flow booms leading to increased bond, bank and possibly direct investment inflows. These inflows exert upward pressure on the domestic exchange rate because investors purchase local currency to invest in the stock market. Exchange rate appreciates, raising the cost of exports and lowering those of imports.

- However, sterilization with all its associated costs, cannot be operated successfully as a long term policy, because capital inflows are generally the result of an interest rate differential between domestic and international markets. Sterilization involving the issue of more bonds may exacerbate the costs to government and domestic industry in raising debt financing for investment.
- Capital inflows could mean government adoption of pro-cyclical policy. Some beneficial response to capital inflows may derive from government policy wishing to prevent a depreciation of the exchange rate. Autonomous inflows of foreign capital may **reduce** the depreciation of the exchange rate and allow a relaxation of monetary policy (and hence increased growth), with outflows **increasing** the depreciation and requiring a monetary contraction. The cost here is that monetary policy would have been seen to be highly pro-cyclical with countries' economic conditions rather than acting to stabilize the economy has led to instability. Under this scenario, government increases spending in booms and cutbacks during recessionary outflow periods and hence increased macroeconomic volatility.

In any event, whether the aim of government policy is to prevent an appreciation or a depreciation of the exchange rate, the management of capital inflows has costs in terms of increased instability of government finances and the macroeconomy and also of reduced government expenditure under the assumption of sterilization of inflows.

## - Market discipline

CAL operates under conditions of market discipline. Market discipline acts as a deterrent against allowing high levels of inflation or running fiscal deficits. In this way, CAL induces "small" government, with negative poverty effects through reduced capital expenditure/investment, growth and inflation.

In sum, CAL negatively affects government finances through a number of ways including:

Cost of managing inflows;

Need for fiscal prudence to satisfy market view under CAL. This implies cuts to expenditure, especially capital expenditure. Disproportionate cuts in recurrent expenditure involving small cuts in transfers that directly benefit the poor. Since the poor can ill afford any cuts in spending on them, CAL would cause hardship to the poor.

Increased level of macroeconomic instability following liberalization can affect government revenue sources, notably cuts to aid flows.

Instability of government finances: volatility of government revenues undermines its ability to commit to programme of expenditure. It also constrains government ability to attract complementary private investment.

CAL opens domestic bond markets to international investors and hence allows greater liquidity for governments and domestic corporate bond issuers. Governments can then raise additional finance through bond issues. But what have been the experiences of countries in liberalizing their capital accounts? What has been the degree of implementation of CAL? The table below contains the country experiences. Economic and Financial Review

Countries	Gradual CAL (with significant restrictions)	Substantial CAL	Comprehensive CAL
Zambia	· · · · · · · · · · · · · · · · · · ·		(1994)
Ghana			
Uganda			
Kenya			
Malawi			(1980s)
Lesotho			(1990s)
South Africa			(1990s)
Franc Zone			
Egypt		(1980s)	
Israel			
Jordan			
Lebanon			
Turkey			
Algeria			
Morocco			
Syria			
Tunisia			
India			
Chine			
East Asia			
Taiwan			
Korea	(1960s & 1970s)		
Malaysia	}		
Thailand	J		
Philippines	-		
Singapore			
Hong Kong			

#### **Country Experiences with Capital Account Liberalization**

### V. Conclusion

This paper has reviewed the preconditions for effective implementation of capital account liberalization (CAL). It has also articulated the costs as well as the benefits of CAL. It has identified the roles which institutional stakeholders in the management of the economy need to play to provide an enabling environment for CAL to succeed.

There is no doubt that a completely closed capital account is not an option for any country. The issues really are the degree, sequencing and timing of opening up the capital account. The country is bracing up to meet some of the major preconditions for CAL implementation. For example, financial systems reforms are on-going. The exchange rates, while not fixed, have been flexible

and stable. Government has been pursuing the policy of fiscal consolidation, de-emphasizing deficit spending. Also trade liberalization has been underway.

The above issues represent a manageable pivot around which to implement CAL even if on a gradual basis. Fortunately, the "impossible trinity" of CAL, independent Central Bank and a fixed exchange rate does not exist in Nigeria.

Even so, some nagging worries need to be addressed, including:

- database on capital inflows
- contingency plans to contain volatility in flows/absence of framework/capacity for risk management
- reforms in trade liberalization to enhance its effectiveness
- framework for sterilization of capital flows
- capital market development; enhanced financial intermediation required as catalyst for investment in the real sector.
- review of investment code/existing legal framework to address the needs of CAL; and
- public-private partnership for infrastructural development; reforms targeted at the micro level are urgent.

While making efforts to address those outstanding policy agenda, Nigeria could safely adopt a gradual CAL with significant restrictions. Algeria, Morocco, Syria, Tunisia, India and the East Asian countries of Taiwan, Korea and Malaysia adopted the gradual approach. Countries such as Zambia, Ghana, Uganda, Singapore and Hong Kong have implemented CAL comprehensively with substantial rebound to the high credit ratings of their economies.

This is not to suggest that the policy of gradual implementation of CAL is a panacea for coping with CAL. It is not; it is only a cautious approach to a complicated CAL policy. It should be remembered that even if macro fundamentals in a country are sound, financial system in good health, when a country opens up its capital account, either gradually or comprehensively, problems may still arise.

#### VI. The Way Forward

The **capital market** needs to be broadened and deepened to provide avenue for foreign investors to invest. In this regard, the investment code should be reviewed to accommodate foreign investor participation in the market.

The mechanism of **sterilization** should be well articulated and if need be, the powers of the monetary authorities to sterilize destabilizing inflows should be supported by an additional provision in the CBN Act.

The Ministry of Finance, Central Bank and National Planning Commission should jointly adopt a framework for **risk management**, particularly, as volatility of capital inflows can destabilize government finances and breed macroeconomic instability. Capacity building for staff in this area is crucial for effective management of CAL.

The Central Bank should continue to fine-tune **reforms in the financial sector** to breed confidence in the international community. It should also continue to improve on the current methodology that has stabilized the exchange rate in recent times. Also, efforts should be made to maintain a realistic exchange rate that track the fundamental equilibrium exchange rate (FEER). A flexible and sustainable exchange rate is one that is consistent with the implementation of CAL.

The various **incentive packages** for foreign direct investment should be fine-tuned and structured more in line with global trends.

Policy must not be allowed to be pro-cyclical leading to situations where economic booms are matched with relaxed monetary policy and great spending; recessions are visited with contractionary monetary policy and reduced expenditures. Such pro-cyclical policies engender macroeconomic instability that induces capital flight and inhibits capital inflows.

Since CAL operates under **market discipline** which frowns at high inflation and fiscal deficit, government should be careful, while maintaining a policy of fiscal consolidation in line with CAL, not to significantly reduce expenditures targeted at the poor. Poverty reduction should continue to remain the article of faith underlying fiscal operations.

The National Planning Commission, Debt Management Office (DMO) and Central Bank should take steps to maintain **reliable database on grants**, concessional loans and foreign direct investment. Such a database would be helpful to government in developing contingency plans to cope with wild volatility of capital inflows.

**Trade Liberalization** should be re-visited in order to assuage the incidental costs through subsidies, import duty relief etc. Trade liberalization is an important prerequisite to effective CAL.

Monetary policy should continue to be pursued in collaboration with the Ministry of Finance. This coordination should be strengthened as successful CAL implementation needs it.

The private sector should be encouraged to assist in the development of the capital market in terms of increased holdings of securities and maintenance of ethical standards in the market. In this regard, government should catalyze private sector partnership in infrastructural development by conducting its affairs with accountability, transparency and due process.

December 2006

The country must hedge against capital flight after removal of controls. This could be achieved by maintaining macroeconomic stability, sound institutions and a track record of sound and consistent policies. In addition, there is need to:

- improve incentives for investors
- provide incentives to tax capital less, allowing tax burden to fall more on workers and consumers. This, however, may raise issues of distributive equity, especially as higher tax on labour affects the poorest most heavily.
- develop infrastructure.

SMEs should be targeted for greater funding in order to compensate for diversion of financing for more technologically efficient investment sectors following CAL. Credit allocation to SMEs might need to increase following CAL e.g. as in China. There might also be a need to encourage more sub-branch units of banks to reach a mass rural clientele and hence broadening significantly the provision of financial services to the poorest who might be disadvantaged following CAL e.g. Bank Raky in Indonesia did this in 1999.

Government should note the appropriate sequencing of implementation of CAL to avoid macroeconomic crises. Implementation should be gradual with significant restrictions on capital flows.

#### References

- Adam C. (1999). "Liberalization, Policy Reform and the Demand for Money in Africa", Journal of African Economies, Vol. 8 pp 263 - 7.
- Blackwell, M. and Nocera, S (1995). "Debt Equity Swaps", Analytical Issues in Debt; Edited by Jacob A, Frenkel, Michael P. Dooley, and Peter Wickham, IMF, pp 336 - 338.
- Cobbam, Alex (2001). Capital Account Liberalization and Poverty, being the edited version of a paper commissioned by Bretton Woods Project and Oxfam for the Capital Account Liberalization and Poverty Meeting held at Queen Elizabeth House, Oxford University on 12<sup>th</sup> January.
- Demirgue Kunt, A & Detragiache, E (1998). "Financial Liberalization and Financial Fragility, "in Proceeding of the Annual Bank Conference in Development Economics, Washington D. C., World Bank.
- Grubel, W. C. Mcleod, D (2000). Capital Account Liberalization and Inflation in the 1990s, being the text of a paper prepared for LACEA RIO 2000 Meetings, June 30, Federal Reserve Bank of Dallas, Fordham University, New York.
- Klein, M. W. (2005). Capital Account Liberalization, Institutional Quality and Economic Growth, Fletcher School, Tugts University.
- Lieftinck, P. (1968). "Current and Capital Transaction: How the Fund Defines them," Finance and Development, IMF, Washington D. C. Sept.
- Mathieson, D. J. and Rojas-Suarez, L. (1990). "Financial Market Integration and Exchange Rate Policy, "in Choosing an Exchange Rate Regime: The Challenge for Smaller Industrial Countries, IMF
- McKinnon, R. (1973). Money and Capital in Economic Development, Washington D. C, Brookings Institution

- Omoruyi, S. E. (1997). Methodology and Theoretical Framework on Naira Convertibility, being the text of a paper presented at the Closed Door National Workshop on the Feasibility of the Convertibility of the Naira in the West African Sub-region organized by the Nigeria Economic Society in collaboration with the Federal Ministry of Finance and held at Abuja, May 19-22.
- Stiglitz, J. (2000). "Capital Market Liberalization, Economic Growth and Instability", in World Development, Vol 28, pp 1075–1086.